Applicant: Michael F. Hoey et al.

Filed: Herewith

Docket No.: M190.133.102

Title: APPARATUS AND METHOD FOR CREATING, MAINTAINING, AND CONTROLLING A VIRTUAL

ELECTRODE USED FOR THE ABLATION OF TISSUE

Continuation Application of: Applicant: Michael F. Hoey et al.

Serial No.: 09/903,296 Filed: July 11, 2001

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ablation element;

IN THE CLAIMS

Please cancel claims 1-5 and add claims 6-48 as follows:

1.(Cancelled)
2.(Cancelled)
3.(Cancelled)
4.(Cancelled)
5.(Cancelled)
6.(New) A system for ablating tissue, comprising:
 a surgical instrument including an ablation element for delivery of an ablating energy to the tissue;
 a RF generator coupled to the surgical instrument to deliver ablating energy to the

7.(New) The system of claim 6, wherein the processor is adapted to limit the number of

operating parameter of the surgical instrument; and

a processor for receiving the at least one operating parameter.

times the surgical instrument is used based upon the operating parameter.

a memory chip coupled to the surgical instrument and adapted to provide at least one

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8.(New) The system of claim 6, wherein the operating parameter relates to the delivery of ablating energy.

- 9.(New) The system of claim 8, wherein the processor is adapted to limit the number of times the ablating energy is delivered to the surgical instrument based upon the operating parameter.
- 10.(New) The system of claim 8, wherein the processor is adapted to limit the total amount of time the ablating energy is delivered to the surgical instrument based upon the operating parameter.
- 11.(New) The system of claim 6, wherein the processor is adapted to establish a time limit within which the surgical instrument must be used based upon the operating parameter.
- 12.(New) The system of claim 6, wherein the memory chip is pre-programmed.
- 13.(New) The system of claim 6, wherein the memory chip is a microchip.
- 14.(New) The system of claim 6, wherein the memory chip is located in a connector used to couple the surgical instrument to the processor.
- 15.(New) The system of claim 6, wherein the surgical instrument further includes a temperature sensor for sensing a temperature.
- 16.(New) The system of claim 15, wherein the operating parameter relates to temperature.

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17.(New) The system of claim 6, further comprising a source of conductive fluid selectively providing conductive fluid to the tissue.

18.(New) The system of claim 17, wherein the operating parameter relates to fluid flow.

19.(New) The system of claim 6, wherein the operating parameter is an identifier unique to the surgical instrument.

20.(New) A system for ablating tissue, comprising:

- a surgical instrument including an ablation element for delivery of an ablating energy to the tissue:
- a RF generator coupled to the surgical instrument to deliver ablating energy to the ablation element; and
- an identifying means coupled to the surgical instrument and the RF generator to provide at least one identifying characteristic of the surgical instrument to the RF generator.
- 21.(New) The system of claim 20, wherein the identifying characteristic is an operating parameter.
- 22.(New) The system of claim 21, wherein the operating parameter is used to limit the number of times the surgical instrument is used.

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- 23.(New) The system of claim 21, wherein the operating parameter relates to the delivery of ablating energy.
- 24.(New) The system of claim 23, wherein the operating parameter is used to limit the number of times the ablating energy is delivered to the surgical instrument.
- 25.(New) The system of claim 23, wherein the operating parameter is used to limit the total amount of time the ablating energy is delivered to the surgical instrument.
- 26.(New) The system of claim 21, wherein the operating parameter is used to limit the amount of time within which the surgical instrument must be used.
- 27.(New) The system of claim 20, wherein the identifying means is a memory chip.
- 28.(New) The system of claim 27, wherein the memory chip is pre-programmed.
- 29.(New) The system of claim 27, wherein the memory chip is a microchip.
- 30.(New) The system of claim 20, wherein the identifying means includes a memory chip located in a connector.
- 31.(New) The system of claim 20, wherein the surgical instrument further includes a temperature sensor for sensing a temperature.

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32.(New) The system of claim 31, wherein the identifying characteristic relates to temperature.

33.(New) The system of claim 20, further comprising a source of conductive fluid selectively providing conductive fluid to the tissue.

34.(New) The system of claim 33, wherein the identifying characteristic relates to fluid flow.

35.(New) The system of claim 20, wherein the identifying characteristic is an identifier unique to the surgical instrument.

36.(New) A method of treating tissue by ablation, the method comprising:

providing an RF generator for the delivery of an ablating energy;

connecting a surgical instrument to the RF generator, the surgical instrument comprising an ablation element for delivery of the ablating energy to tissue and a memory chip for delivery of an operating parameter to the RF generator;

placing the surgical instrument in contact with tissue to be ablated;

delivering the operating parameter from the memory chip to the RF generator; and delivering ablating energy from the RF generator through the surgical instrument to tissue to be ablated based upon the operating parameter.

37.(New) The method of claim 36, wherein the operating parameter limits the number of times ablating energy is delivered from the RF generator through the surgical instrument.

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- 38.(New) The method of claim 36, wherein the operating parameter limits the total amount of time ablating energy is delivered from the RF generator through the surgical instrument.
- 39.(New) The method of claim 36, wherein the operating parameter establishes a time limit within which the surgical instrument may be used to deliver ablating energy.
- 40.(New) The method of claim 36, wherein the operating parameter limits the delivery of ablating energy from the RF generator through the surgical instrument.
- 41.(New) The method of claim 36, wherein the memory chip is pre-programmed.
- 42.(New) The method of claim 36, wherein the memory chip is a microchip.
- 43.(New) The method of claim 36, wherein the memory chip is located in a connector used to connect the surgical instrument to the RF generator.
- 44.(New) The method of claim 36, wherein the surgical instrument further comprises a temperature sensor.
- 45.(New) The method of claim 44, wherein the operating parameter limits the delivery of ablating energy from the RF generator based on temperature.
- 46.(New) The method of claim 36, further comprising selectively providing conductive fluid to the tissue to be ablated from a source of conductive fluid.

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47.(New) The method of claim 46, further comprising controlling the flow of fluid from the source of conductive fluid to the tissue based upon the operating parameter.

48.(New) The method of claim 36, wherein the operating parameter is an identifier unique to the surgical instrument.